ABSTRACT

An object of the invention is to provide a small and low-cost variable polarization plane rotator that can control a rotation angle of the polarization plane easily, and an optical device using the same. To this end, a variable polarization plane rotator according to the present invention is provided with a λ/4 phase plate having an optical axis in the same direction as, or at a 90 degree angle relative to, a polarization direction of input light beam, to apply a 90 degree phase difference between polarization components parallel to and perpendicular to the optical axis thereof, a phase difference variable element having an optical axis at a ±45 degree angle relative to the optical axis of the λ/4 phase plate, to apply a variable phase difference between the polarization components parallel to and perpendicular to the optical axis thereof, and a phase difference adjustment section that adjusts the variable phase difference of the phase difference variable element, wherein the input light beam, after being transmitted through the phase difference variable element to be into elliptically polarized light or circularly polarized light, is transmitted through the λ/4 phase plate to be into linearly polarized light, to thereby rotate the polarization plane of the input light beam by an angle corresponding to the phase difference applied by the phase difference variable element.